



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/539,148

06/16/2005

Morgan Kanfod

AC-100

9266

7590

11/06/2008

Mark P. Stone
25 Third Street
4th Floor
Stamford, CT 06905

EXAMINER

MACARTHUR, VICTOR L

ART UNIT

PAPER NUMBER

3679

MAIL DATE

DELIVERY MODE

11/06/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.



UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/539,148
Filing Date: June 16, 2005
Appellant(s): KANFLOD ET AL.

Mark Stone
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 9/18/2008 appealing from the Office action mailed 5/1/2008.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

1994792	Sanderson	3-1935
1701985	Ponto	2-1929

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Sanderson (U.S. Patent 1,994,792).

Claim 1. Sanderson discloses (fig.2) appellant's claimed structure as follows: a coupling sleeve (6) connecting a threaded rock bolt (5) to an impact rock drilling machine (3, 2), said coupling sleeve comprising a first part (lower part of 6) provided with an internal thread (internal thread of 6 receiving 5) for connection of the rock bolt, and a second part (upper part of 6) provided with an internal thread (internal thread of 6 receiving 3) for connection of the rock drilling machine, characterized in that the second part comprises a locking device (15) arranged substantially transversely to a longitudinal axis (longitudinal axis of 6) of the coupling sleeve, said locking device cooperating with a region (2) on the rock drilling machine. (Note that the Sanderson embodiment shown in figures 6 and 7 also anticipates appellants claim in another manner wherein element 25 would be the locking device).

Because the prior art discloses all of appellant's claimed structure as noted above, a *prima facie* case of anticipation of the functional limitations has been presented in accordance

Art Unit: 3679

with MPEP 2112.01, and the above identified prior art structure must be presumed to be fully capable of performing appellant's functional limitations (until appellant submits **evidence proving otherwise** in accordance with MPEP 2112.01) as follows:

- Said cooperation of said locking device with said region on the rock drilling machine is presumed to be fully capable of performing the function of being for preventing separation of the coupling sleeve and the rock drilling machine, in accordance with MPEP 2112.01. Note that the prior art figures clearly show such a preventing of separation.
- When the locking device is unloaded during a percussion operation, the rock drilling machine (3, 2) is presumed to be fully capable of performing the function of transmitting percussion energy to the rock bolt during a percussion operation in accordance with MPEP 2112.01, especially since the machine (3,2) is positively connected to bolt (5) by sleeve (6) which would clearly transmit any percussion energy from the machine (3,2) to the bolt (5). Appellant's drilling machine (2 of appellant's figures 1 and 2) is merely a threaded bolt. Appellant has failed to claim any structural characteristic of the drilling machine that is not present in the prior art rock drilling machine (threaded bolt 3,2 of Sanderson) such that the prior art structure must be presumed to be capable of performing appellant's function in as and appellant's own drilling machine. Note that appellant's own locking device 7 is in direct contact with tapered portion of 8 such that it is loaded to prevent rotation as seen in figure 1 and said locking device retains the rock drilling machine connected to the coupling sleeve when said rock bolt is disconnected from said coupling sleeve.

Art Unit: 3679

- When said rock bolt (5) is disconnected from said coupling sleeve (6) by rotation of said rock drilling machine in a direction for disconnecting said first part of said coupling sleeve from said rock bolt, said locking device (15) is presumed to be fully capable of retaining the rock drilling machine (2, 3) connected to the coupling sleeve for reinforcing a rock with said rock bolt, in accordance with MPEP 2112.01. Note that the threaded connection of the machine (2,3) and sleeve (6) is locked by device (15) such that rotation of the machine (2,3) would necessarily rotate the sleeve (6) and allow for disconnection of the connection between the bolt (5) by holding (5) fast while (6) and (2,3) rotate as a locked assembly together.

Furthermore, the specific method of using the coupling sleeve is not germane to the issue of patentability of the coupling sleeve device itself. See MPEP § 2113. It is well established by case law that it is the patentability of the product that is to be determined even though such claims are limited and defined by process steps. See *In re Thorpe et al*, 227 USPQ 964 (CAFC 1985). If appellant truly seeks patentability based upon a method of using then a continuation with such method claims should be filed.

Mere allegation that the prior art is incapable of performing the claimed function, in a declaration or otherwise, is not considered proper evidence much less proof (*In re Schreiber*, 128 F.3d 1473, 1478 44 USPQ2d 1429, 1432 [Fed.Cir.1997]).

Anticipation of the **claimed structure** results in the assumption of the function to be inherent and further automatically shifts the burden to address functional limitations to the appellant regardless of whether or not the examiner specifically addresses the functional limitations. This is necessary since the Patent Office is unable to obtain, test or compare prior art

Art Unit: 3679

products. See *Ex parte Martin et al*, decision of the Board of Patent Appeals and Interferences, Patent No. 6920019, the paper filed on 11/19/2004, pages 6 and 9. Note that citation of an unpublished decision of the Board of Patent Appeals and Interferences is proper when it is available to the public in the patented file, in accordance with MPEP §707.06. Further note that the examiner is "required or authorized" to adhere to such prior decisions in accordance with the Forward and Introduction section of the MPEP.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1 is rejected under 35 U.S.C. 102(b) as anticipated by Ponto (U.S. Patent 1,701,985) or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ponto (U.S. Patent 1,701,985) in view of Sanderson (U.S. Patent 1,994,792).

Claim 1. Ponto discloses (fig.2) all of appellants claimed structure as follows: a coupling sleeve (7, 11) connecting a threaded rock bolt (2) to an impact rock drilling machine (1), said coupling sleeve comprising a first part (lower part of 7 and 11) provided with an internal thread (internal thread receiving 6) for connection of the rock bolt, and a second part (upper part of 7 and 11) provided with an internal thread (internal thread receiving 5) for connection of the rock drilling machine, characterized in that the second part comprises a locking device (14) arranged substantially transversely to a longitudinal axis (longitudinal axis of 11) of the coupling sleeve,

Art Unit: 3679

said locking device cooperating with a region (region of 1 receiving 14) on the rock drilling machine. Because the prior art discloses all of appellant's claimed structure as noted above, this prior art structure is presumed to be fully capable of performing appellant's functional limitations (until appellant submits **evidence proving otherwise** in accordance with MPEP 2112.01) as follows:

- Said cooperation of said locking device with said region on the rock drilling machine is presumed to be fully capable of performing the function of being for preventing separation of the coupling sleeve and the rock drilling machine, in accordance with MPEP 2112.01. Note that the prior art figures clearly show such a preventing of separation.
- When the locking device is unloaded during a percussion operation (in as much as appellant's own device is), the rock drilling machine (1) is presumed to be fully capable of performing the function of transmitting percussion energy to the rock bolt during a percussion operation in accordance with MPEP 2112.01, especially since the machine (1) is positively connected to bolt (2) by the sleeve (7, 11) which clearly would transmit any percussion energy from the machine (1) to the bolt (2).

Appellant's drilling machine (2 of appellant's figures 1 and 2) is merely a threaded bolt. Appellant has failed to claim any structural characteristic of the drilling machine that is not present in the prior art rock drilling machine (threaded bolt 1 of Ponto) such that the prior art structure must be presumed to be capable of performing appellant's function in as and appellant's own drilling machine. Note that appellant's own locking device 7 is in direct contact with tapered portion of 8 such that it is

Art Unit: 3679

- loaded to prevent rotation as seen in figure 1 and said locking device retains the rock drilling machine connected to the coupling sleeve when said rock bolt is disconnected from said coupling sleeve.
- When said rock bolt (2) is disconnected from said coupling sleeve (7, 11) by rotation of said rock drilling machine (1) in a direction for disconnecting said first part of said coupling sleeve from said rock bolt, said locking device (14) is presumed to be fully capable of retaining the rock drilling machine (1) connected to the coupling sleeve for reinforcing a rock with said rock bolt, in accordance with MPEP 2112.01. Note that the threaded connection of the machine (1) and sleeve (7, 11) is locked by device (14) such that rotation of the machine (1) would necessarily rotate the sleeve (7, 11) and allow for disconnection of the connection between the bolt (2) by holding (2) fast while (7, 11) and (1) rotate as a locked assembly together.
 - Even if, for the sake of argument, the Ponto rock drilling machine is not used to transfer percussion energy as claimed (i.e., that the Pronto machine is purely intended for churn drilling without any percussion); Sanderson teaches (figs.1-4) that internally threaded coupling sleeves that are used with churn drilling machines are also commonly used with percussion type drilling machines (p.1, ll.1-3). Therefore, even if the Ponto drilling machine is assumed to be a churn machine free of any impact intended use, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the Ponto coupling with a impact rock drilling machine, as taught by Sanderson, to improve the utility of Ponto since such couplings are commonly known to be usable with both impact and churn types of machines.

Art Unit: 3679

(10) Response to Argument

Appellant argues (p.8, 1st paragraph) that Sanderson does not disclose “a coupling sleeve connecting a threaded rock bolt to an impact rock drilling machine in which the rock bolt is disconnected from the coupling sleeve for reinforcing rock with the rock bolt”. This is not persuasive as follows:

- Sanderson discloses appellant’s claimed structure of a coupling sleeve (6) connecting a threaded rock bolt (5) to an impact rock drilling machine (3, 2).
- Because the Sanderson structure is identical to appellant's claimed structure, it is presumed to be inherently capable of performing appellant's claimed functions, in accordance with MPEP 2112.01.
- Appellant has failed to point out any structural feature of Sanderson that would prevent the rock bolt (5) from being disconnected from the coupling sleeve (6) and thereafter used for the intended use of reinforcing rock with the rock bolt.

Appellant argues (p.8, 2nd paragraph) that element 15 of Sanderson is loaded during a normal drilling operation rather than being loaded only during rotation of the drilling machine.

This is not persuasive as follows:

- The phrases “only” and “normal” are not recited in the claims. There are no claim recitations that specifically forbid loading during normal drilling operation. Nor do the claims specifically forbid loading during non-rotation of the drilling machine.

Art Unit: 3679

Appellant argues (p.9, 2nd paragraph) that Sanderson remains in a loaded state during normal drilling operation when percussion energy is being transmitted. This is not persuasive as follows:

- The phrases “loaded state” and “normal” are not recited in the claims. The claim limitation "percussion energy is transmitted from the rock drilling machine to the rock bolt during a percussion operation when the locking device is unloaded” does not specifically forbid loading. Rather, this limitation requires that it is possible to unload the locking device in a manner that allows for percussion energy to be transmitted from the rock drilling machine to the rock bolt during a percussion operation. Since The prior art is structurally identical to the claimed structure. This function is presumed to be inherently capable to the prior art structure in accordance with MPEP 2112.01.

Appellant argues (p.10, 1st paragraph) that Sanderson does not disclose the appellant’s claimed usage. This is not persuasive as follows:

- Again, Sanderson’s structure is identical to appellant’s claimed structure such that the prior art structure is presumed to be inherently capable of performing appellant's claimed function in accordance with MPEP 2112.01. Because the claim in question is a product claim, not a method claim, the question of whether or not Sanderson expressly describes appellant’s function is irrelevant as long as the Sanderson structure is capable of performing these functions. This capability is presumed to be inherent in accordance with MPEP 2112.01. Furthermore, the examiner has detailed how such function can be affected in the prior art rejections above.

Art Unit: 3679

Appellant argues (p.10, 1st paragraph) that Sanderson does not have a rigid connection, but instead is connected to a rope which renders Sanderson incapable of performing the claimed function of transmitting percussion energy. This is not persuasive as follows:

- The phrase "rigid connection" is not recited in the claims.
- Sanderson discloses a rigid connection between the machine (3, 2) and the bolt (5) via the sleeve (6). The rope (10) has no effect on the rigid connection between the machine (3,2) and bolt (5) since it does not lie between the machine and bolt but is merely attached to the end of the machine (3,2).
- The fact that Sanderson intends for the machine (3,2) to be connected to a rope at its end does not render the Machine (3, 2) any less capable of being connected to other more rigid elements. That is to say that the prior art need not disclose appellant's claimed intended use in order to be fully capable of performing such a function.. For instance, consider *In re Schreiber*, 128 F.3d 1473, 1478 44 USPQ2d 1429, 1432 [Fed.Cir.1997]). In *Schreiber* it was established that a prior art funnel that had all of appellant's claimed funnel structure was inherently capable of performing appellant's claimed popcorn kernel dispensing functions, even though the prior art funnel was specifically disclosed as functioning to dispense oil rather than popcorn kernels.
- Mere allegation that the prior art is incapable of performing the claimed function, in a declaration or otherwise, is not considered proper evidence much less proof (*In re Schreiber*, 128 F.3d 1473, 1478 44 USPQ2d 1429, 1432 [Fed.Cir.1997]).

Art Unit: 3679

Appellant argues that Ponto is not capable of transmission of percussion energy because the threaded pins (5,6) are not in contact with any bottom in the box (7). This is not persuasive as follows:

- The claims do not recite "in contact with any bottom in the box".
- Ponto discloses a drilling machine (1) and threaded rock bolt (2) that are separated by a part (7) of a sleeve (7, 11). The machine (1), sleeve part (7) and bolt (2) are in direct rigidly connected series such that any percussion energy applied from the machine (7) would necessarily be transmitted to (7) which in turn would necessarily transmit to (2). Appellant has failed to reason otherwise (much less prove with evidence).

Appellant's remaining arguments regarding the 102 (b) rejection over Ponto are similar to those already addressed regarding Sanderson, i.e., that Ponto does not disclose the claimed functions. These arguments are not persuasive by similar reasoning. Simply put, Ponto discloses all of appellant's claimed structural limitations such that the Ponto structure is substantially identical to the claimed structure and thus presumed to be inherently capable of performing appellant's functional limitations in accordance with MPEP 2112.01. Please see the prior art rejections above for more specific detail on how Ponto and Sanderson are capable of performing the claimed functions.

Regarding the 103(a) rejection appellant argues that Sanderson and Ponto cannot be combined since they are diverse from one another. This is not persuasive. Both Sanderson and Ponto are relevant to the problem of effecting threaded sleeve connections.

Art Unit: 3679

Appellant argues that the references cannot be bodily combined. This is not persuasive since the 103(a) rejection merely relies on Sanderson to teach that internally threaded coupling sleeves that are used with churn drilling machines are also commonly used with percussion type drilling machines (Sanderson, p.1, ll.1-3). No bodily incorporation or modification is required to use Ponto for percussion drilling as taught by Sanderson. Furthermore, even if bodily incorporation were required, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

The appellant argues that using Ponto for percussion drilling as taught by Sanderson requires improper hindsight since there is no suggestion to do so in the references or common knowledge in the art. This is not persuasive. Motivation to use the Ponto coupling with impact drilling since Sanderson teaches that such couplings are commonly known to be useful for such operations. Thus the motivation of improving/diversifying the Ponto utility by using the Ponto coupling in impact drilling comes from Sanderson and common sense.

Appellant is reminded that where there is physical identity between the subject matter of the claim and the prior art, the label (e.g., rock bolt, impact rock drilling machine, etc.) given to the claimed subject matter does not distinguish the invention over the prior art. In re Pearson, 494 F. 2d 1399, 1403, 181 USPQ 641, 644 (CCPA 1974); In re Lemin, 326 F. 2d 437, 140 USPQ 273 (CCPA 1964).

Art Unit: 3679

Regarding functional limitations in general please note the following:

- Because the scope of the claims is necessarily broader than the exemplary embodiments shown in the drawings and described in the written description, limitations must **never** be read into the claims from the drawings or written description. This is equally true regardless of whether limitations are structural, functional, or intended use. Accordingly, appellant cannot argue for patentability based upon functional limitations that are not expressly recited in the claims.
- A claimed functional limitation is a recitation of capability. Therefore, while prior art used to reject a claim must present structure that is fully capable of performing the claimed function, the prior art need not expressly disclose the function itself. Furthermore, it is not required that the prior art include any of appellant's unclaimed exemplary embodiment features of the drawings and/or written description. That is to say that any **unclaimed** drawing or written description structure involved with the claimed function, or any particular **unclaimed** manner of performing the claimed function need not be present in the prior art.
- As detailed above, the prior art structure is substantially identical to the **claimed** structure such that claimed properties or functions are presumed to be inherent, thus presenting a *prima facie* case (*In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 [CCPA 1977]) and properly shifting the burden of submitting evidence proving otherwise to the appellant (*In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 [Fed.Cir. 1990]) in accordance with MPEP §2112.01 (I).

Art Unit: 3679

- Mere allegation that the prior art is incapable of performing the claimed function, in a declaration or otherwise, is not considered proper evidence much less proof (*In re Schreiber*, 128 F.3d 1473, 1478 44 USPQ2d 1429, 1432 [Fed.Cir.1997]).
- Anticipation of the **claimed structure** automatically results in the assumption of the function to be inherent and further automatically shifts the burden to address functional limitations to the appellant regardless of whether or not the examiner specifically addresses the functional limitations. This is necessary since the Patent Office is unable to obtain, test or compare prior art products. See *Ex parte Martin et al*, decision of the Board of Patent Appeals and Interferences, Patent No. 6920019, the paper filed on 11/19/2004, pages 6-9. Note that citation of an unpublished decision of the Board of Patent Appeals and Interferences is proper when it is available to the public in the patented file, in accordance with MPEP §707.06. Further note that the examiner is "required or authorized" to adhere to such prior decisions in accordance with the Forward and Introduction section of the MPEP.

Art Unit: 3679

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Victor MacArthur/

Primary Examiner, Art Unit 3679

Conferees:

Robert J Sandy /R. J. S./

Daniel P. Stodola /DPS/